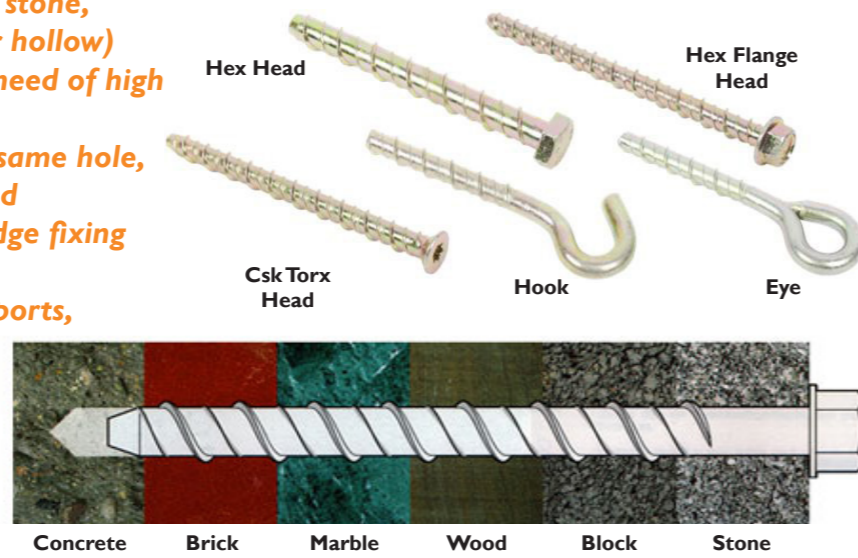


- The original and best selling all-purpose anchor
- Self tapping and suitable for concrete, stone, brick, marble, wood and block (solid or hollow)
- Safe anchorage achieved without the need of high tightening forces
- Can be removed and re-fixed into the same hole, providing the thread is correctly aligned
- No expansion forces means close to edge fixing and reduced centre spacing distances
- Uses include fixing handrails, post supports, timber battens and satellite dishes
- Can be used by general builders, fencing contractors, property developers and maintenance, shop fitters, plumbers and restoration contractors

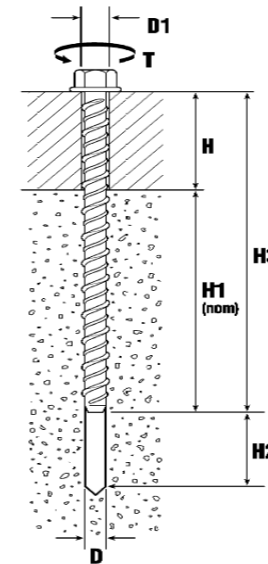
THUNDERBOLT

Thunderbolts



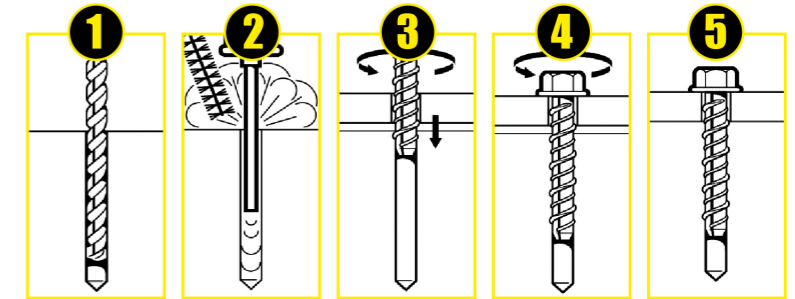
Code	Type	Size	Drill Bit Dia.	Max Fixture Thickness	Min Embed Depth	Min Over Drill Depth	Clearance Drill Bit Dia.	Max Tightening Torque	Anchor Length	Washer Size	Driver Type	Min Hole Depth	Box Quantity
See installation instructions:			D	H	H1	H2	D1	T	H3				
MTHFB05050	Hex Flange	M5 x 50	5mm	25mm	25mm	10mm	7mm	15Nm	50mm	-	8 A/F	32.5mm	100
MTHFB05075	Hex Flange	M5 x 75	5mm	50mm	25mm	10mm	7mm	15Nm	75mm	-	8 A/F	32.5mm	100
MTHFB05100	Hex Flange	M5 x 100	5mm	63mm	37mm	10mm	7mm	15Nm	100mm	-	8 A/F	32.5mm	100
MTHFB06050	Hex Flange	M6 x 50	6mm	20mm	30mm	10mm	8mm	25Nm	50mm	-	10 A/F	40mm	100
MTHFB06075	Hex Flange	M6 x 75	6mm	45mm	30mm	10mm	8mm	25Nm	75mm	-	10 A/F	40mm	100
MTHFB06100	Hex Flange	M6 x 100	6mm	55mm	45mm	10mm	8mm	25Nm	100mm	-	10 A/F	40mm	100
MTHFB06130	Hex Flange	M6 x 130	6mm	85mm	45mm	10mm	8mm	25Nm	130mm	-	10 A/F	40mm	100
MTHFB06150	Hex Flange	M6 x 150	6mm	105mm	45mm	10mm	8mm	25Nm	150mm	-	10 A/F	40mm	100
MTHB08060	Hex Head	M8 x 60	8mm	20mm	40mm	15mm	10mm	40Nm	60mm	10mm	15 A/F	55mm	100
MTHB08075	Hex Head	M8 x 75	8mm	35mm	40mm	15mm	10mm	40Nm	75mm	10mm	15 A/F	55mm	100
MTHB08100	Hex Head	M8 x 100	8mm	60mm	40mm	15mm	10mm	40Nm	100mm	10mm	15 A/F	55mm	100
MTHB08130	Hex Head	M8 x 130	8mm	90mm	40mm	15mm	10mm	40Nm	130mm	10mm	15 A/F	55mm	50
MTHB08150	Hex Head	M8 x 150	8mm	110mm	40mm	15mm	10mm	40Nm	150mm	10mm	15 A/F	55mm	50
MTHB10060	Hex Head	M10 x 60	10mm	10mm	50mm	20mm	12mm	60Nm	60mm	12mm	17 A/F	70mm	50
MTHB10075	Hex Head	M10 x 75	10mm	25mm	50mm	20mm	12mm	60Nm	75mm	12mm	17 A/F	70mm	50
MTHB10100	Hex Head	M10 x 100	10mm	50mm	50mm	20mm	12mm	60Nm	100mm	12mm	17 A/F	70mm	50
MTHB10130	Hex Head	M10 x 130	10mm	80mm	50mm	20mm	12mm	60Nm	130mm	12mm	17 A/F	70mm	25
MTHB10150	Hex Head	M10 x 150	10mm	100mm	50mm	20mm	12mm	60Nm	150mm	12mm	17 A/F	70mm	25
MTHB12075	Hex Head	M12 x 75	12mm	15mm	60mm	25mm	14mm	80Nm	75mm	14mm	19 A/F	85mm	50
MTHB12100	Hex Head	M12 x 100	12mm	40mm	60mm	25mm	14mm	80Nm	100mm	14mm	19 A/F	85mm	50
MTHB12130	Hex Head	M12 x 130	12mm	70mm	60mm	25mm	14mm	80Nm	130mm	14mm	19 A/F	85mm	25
MTHB12150	Hex Head	M12 x 150	12mm	90mm	60mm	25mm	14mm	80Nm	150mm	14mm	19 A/F	85mm	20
MTHB12200	Hex Head	M12 x 200	12mm	140mm	60mm	25mm	14mm	80Nm	200mm	14mm	19 A/F	85mm	20
MTHB16100	Hex Head	M16 x 100	16mm	20mm	80mm	32mm	20mm	100Nm	100mm	18mm	27 A/F	112mm	10
MTHB16150	Hex Head	M16 x 150	16mm	70mm	80mm	32mm	20mm	100Nm	150mm	18mm	27 A/F	112mm	10
MTHB16200	Hex Head	M16 x 200	16mm	120mm	80mm	32mm	20mm	100Nm	200mm	18mm	27 A/F	112mm	10
MTEB08055	Eye	M8 x 55	8mm	-	-	-	-	-	-	-	-	-	50
MTHHB08055	Hook	M8 x 55	8mm	-	-	-	-	-	-	-	-	-	50
MHTB05030	Csk Torx	M5 x 30	5mm	5mm	25mm	10mm	7mm	15Nm	30mm	-	T25	32.5mm	200
MHTB05050	Csk Torx	M5 x 50	5mm	25mm	25mm	10mm	7mm	15Nm	50mm	-	T25	32.5mm	100
MHTB05075	Csk Torx	M5 x 75	5mm	50mm	25mm	10mm	7mm	15Nm	75mm	-	T25	32.5mm	100
MHTB05100	Csk Torx	M5 x 100	5mm	63mm	37mm	10mm	7mm	15Nm	100mm	-	T25	32.5mm	100
MHTB06050	Csk Torx	M6 x 50	6mm	20mm	30mm	10mm	8mm	25Nm	50mm	-	T30	40mm	100
MHTB06075	Csk Torx	M6 x 75	6mm	45mm	30mm	10mm	8mm	25Nm	75mm	-	T30	40mm	100
MHTB06100	Csk Torx	M6 x 100	6mm	55mm	45mm	10mm	8mm	25Nm	100mm	-	T30	40mm	100
MHTB06130	Csk Torx	M6 x 130	6mm	85mm	45mm	10mm	8mm	25Nm	130mm	-	T30	40mm	100
MHTB06150	Csk Torx	M6 x 150	6mm	105mm	45mm	10mm	8mm	25Nm	150mm	-	T30	40mm	100

Thunderbolt Installation Instructions



(Also please see tables for relevant dimensions)

1. Drill at right angles using drill bit of same diameter (D) ensuring hole is slightly deeper than the Thunderbolt (H2).
2. Remove any loose dust from the hole.
3. Screw in the Thunderbolt with a socket wrench. Apply slight downward pressure to start the self-tapping action*.
4. Tighten the Thunderbolt until the fixture is in place. If resistance is experienced whilst tightening, unscrew one turn and re-tighten, ensuring not to over tighten.
5. For optimum performance, use a torque wrench. Do not exceed maximum tightening torque (T).
* If an impact wrench is to be used as means of installation it must be torque controlled and the maximum tightening torque must not be exceeded.



Nut Type Sleeve Anchors



- Suitable for medium to heavy duty applications such as wall plates, brackets, garage doors and signs
- The fixture can be positioned prior to fixing holes being drilled for ease of use

Code	Size	Drill Hole Diameter	Maximum Fixture Thickness	Minimum Hole Depth	Finish	Box Quantity
MSA08040	M8 x 40mm	8mm	10mm	35mm	Zinc & Yellow	100
MSA08065	M8 x 65mm	8mm	35mm	40mm	Zinc & Yellow	50
MSA08085	M8 x 85mm	8mm	55mm	40mm	Zinc & Yellow	50
MSA10050	M10 x 50mm	10mm	12mm	45mm	Zinc & Yellow	50
MSA10077	M10 x 77mm	10mm	37mm	45mm	Zinc & Yellow	50
MSA10097	M10 x 97mm	10mm	57mm	45mm	Zinc & Yellow	50
MSA10125	M10 x 125mm	10mm	80mm	45mm	Zinc & Yellow	50
MSA12075	M12 x 75mm	12mm	25mm	55mm	Zinc & Yellow	50
MSA12099	M12 x 99mm	12mm	49mm	55mm	Zinc & Yellow	25
MSA12129	M12 x 129mm	12mm	79mm	55mm	Zinc & Yellow	25
MSA16111	M16 x 111mm	16mm	65mm	60mm	Zinc & Yellow	20

Through Bolts



- A torque controlled through fixing suitable for medium to heavy duty work
- Ideal for fixing storage racking, holding down steel structures and safety fences
- The fixture can be positioned prior to fixing holes being drilled for ease of use

Code	Size	Drill Hole Diameter	Maximum Fixture Thickness	Minimum Hole Depth	Finish	Box Quantity
MTB06085	M6 x 85mm	6mm	45mm	35mm	Zinc & Yellow	100
MTB08075	M8 x 75mm	8mm	30mm	40mm	Zinc & Yellow	100
MTB08095	M8 x 95mm	8mm	50mm	40mm	Zinc & Yellow	100
MTB08115	M8 x 115mm	8mm	75mm	40mm	Zinc & Yellow	100
MTB10080	M10 x 80mm	10mm	15mm	50mm	Zinc & Yellow	50
MTB10100	M10 x 100mm	10mm	35mm	50mm	Zinc & Yellow	50
MTB10120	M10 x 120mm	10mm	65mm	50mm	Zinc & Yellow	50
MTB12100	M12 x 100mm	12mm	25mm	65mm	Zinc & Yellow	50
MTB12120	M12 x 120mm	12mm	45mm	65mm	Zinc & Yellow	25
MTB12140	M12 x 140mm	12mm	65mm	65mm	Zinc & Yellow	25
MTB12180	M12 x 180mm	12mm	105mm	65mm	Zinc & Yellow	25
MTB16125	M16 x 125mm	16mm	30mm	85mm	Zinc & Yellow	20